

Poster

Effect of modulation of intracellular hydrogen sulfide production



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ABSTRACT

Life expectancy has been significantly increased in recent years and thereby the diseases associated with aging. For hence, healthy aging is a current topic to investigate and try to promote. In a previous study in our laboratory, it has been observed that metabolism and physic health is improved in mice using pharmacological treatments aiming to increase intracellular H₂S generation. To determine the underlying processes leading to these benefits, we evaluated modulations in metabolic pathways in the liver of these mice.

We conducted a protein extraction using the livers of mice exposed to intracellular H₂S generators using the following experimental groups: standard diet, standard diet + drug α , standard diet + drug β , high fat diet, high fat diet + drug α , high fat diet + drug β . Samples were processed and then western blots were performed using specific antibodies to detect several proteins involved in energy, glucose and lipid metabolism. The purpose is to evaluate potential modulations on protein levels and post translational modulations that could contribute to the phenotype of these mice.

The results will allow us to delineate whether intracellular H₂S generators have the potential to modulate relevant pathways in order to generate new approaches for the treatment of age-related metabolic, physical and neurocognitive dysfunctions.

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